

APPENDIX D
COST ESTIMATES

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APPENDIX D
COST ESTIMATES

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**TOTAL PROJECT COST
TRINITY PARKWAY
IH 35E / SH 183 TO US 175 / SH 310**

PRELIMINARY/CONCEPTUAL ESTIMATE OF PROBABLE COSTS OF CONSTRUCTION

LEVEL "E" SCHEMATIC PHASE ESTIMATE

Created By: JWM
Date: 12/30/2013
Reviewed By: JWM
Date: 12/30/2013

Official Estimate Date: 12/30/2013
Mid-point of Anticipated Construction: 7/7/2017
Anticipated Construction Duration: 36 months

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL COST
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1.0 - ROADWAY

1.01	Mainlane Pavement	506,711	SY	\$ 70.00	\$ 35,469,793
1.02	Frontage Road Pavement	51,844	SY	\$ 60.00	\$ 3,110,640
1.03	Ramp Pavement	63,402	SY	\$ 70.00	\$ 4,438,140
1.04	Cross Street Pavement	77,046	SY	\$ 60.00	\$ 4,622,760
1.05	Park Access Pavement	17,606	SY	\$ 50.00	\$ 880,294
1.06	O & M Road (Gravel)	30,936	SY	\$ 12.00	\$ 371,232
1.07	O & M Road (Concrete)	65,253	SY	\$ 50.00	\$ 3,262,650
1.08	Monolithic Curb	64,769	LF	\$ 5.00	\$ 323,845
1.09	Pavement Striping (Solid)	505,290	LF	\$ 0.50	\$ 252,645
1.10	Pavement Striping (Broken)	387,140	LF	\$ 0.50	\$ 193,570
1.11	Concrete Traffic Barrier	121,727	LF	\$ 45.00	\$ 5,477,715
1.12	Excavation	60,170	CY	\$ 10.00	\$ 601,700
1.13	Embankment	60,170	CY	\$ 7.00	\$ 421,190
1.14	Embankment (Borrow)	4,202,493	CY	\$ 10.00	\$ 42,024,930
SUBTOTAL ROADWAY					\$ 101,451,105

2.0 - STRUCTURES

2.01	Mainlane Bridge (Concrete)	2,862,400	SF	\$ 60.00	\$ 171,744,000
2.02	Mainlane Bridge (Steel)	176,482	SF	\$ 95.00	\$ 16,765,790
2.03	Ramp Bridge (Concrete)	1,562,192	SF	\$ 60.00	\$ 93,731,520
2.04	Ramp Bridge (Steel)	278,152	SF	\$ 95.00	\$ 26,424,440
2.05	Park Access Bridge (Concrete)	33,222	SF	\$ 60.00	\$ 1,993,320
2.06	Cross Street Bridge (Concrete)	74,638	SF	\$ 60.00	\$ 4,478,280
2.07	Bridge Widening (Concrete)	231,045	SF	\$ 90.00	\$ 20,794,050
2.08	Bridge Widening (Steel)	3,163	SF	\$ 130.00	\$ 411,190
2.09	Reunion Pedestrian Overlook Platform	1	LS	\$ 8,181,000.00	\$ 8,181,000
2.10	Security Wall	57,600	SF	\$ 45.00	\$ 2,592,000
2.11	Flood Separation Wall	416,420	SF	\$ 150.00	\$ 62,463,000
2.12	Diaphragm Wall	2,258	LF	\$ 10,000.00	\$ 22,580,000
2.13	Slurry Wall	27,200	LF	\$ 500.00	\$ 13,600,000
2.14	Retaining Wall (MSE)	324,302	SF	\$ 35.00	\$ 11,350,570
2.15	Retaining Wall (Other)	141,622	SF	\$ 50.00	\$ 7,081,100
SUBTOTAL STRUCTURES					\$ 464,190,260

3.0 - DRAINAGE

3.01	Drainage - Linear	564	STA	\$ 20,000.00	\$ 11,280,000
3.02	Drainage - Lateral	103	STA	\$ 17,000.00	\$ 1,751,000
3.03	Storm Drain Lift Stations	3	EA	\$ 263,000.00	\$ 789,000
3.04	8' x 5' RCBC	724	LF	\$ 325.00	\$ 235,300
3.05	Remove and/or Construct 8' x 5' RCBC Headwall	2	EA	\$ 15,000.00	\$ 30,000
3.06	10' x 10' RCBC	250	LF	\$ 550.00	\$ 137,500
3.07	Remove and/or Construct 10' x 10' RCBC Headwall	1	EA	\$ 60,000.00	\$ 60,000
3.08	12' RCP	185	LF	\$ 700.00	\$ 129,500
3.09	Remove and/or Construct 12' RCP Headwall	1	EA	\$ 100,000.00	\$ 100,000
3.10	39" RCP	1,095	LF	\$ 110.00	\$ 120,450
3.11	Remove and/or Construct 39" RCP Headwall	3	EA	\$ 8,000.00	\$ 24,000
3.12	4' x 4' RCBC	724	LF	\$ 162.00	\$ 117,288
3.13	Remove and/or Construct 4' x 4' RCBC Headwall	1	EA	\$ 12,000.00	\$ 12,000
3.14	6' x 6' RCBC	964	LF	\$ 325.00	\$ 313,300
3.15	Remove and/or Construct 6' x 6' RCBC Headwall	2	EA	\$ 20,000.00	\$ 40,000
SUBTOTAL DRAINAGE					\$ 14,512,300

4.0 - MISCELLANEOUS

4.01	Demolition - Bridge Structure	1,740	LF	\$ 100.00	\$ 174,000
4.02	Demolition - Bridge Deck	1,171	LF	\$ 40.00	\$ 46,840
4.03	Demolition - Pavement	220,672	SY	\$ 5.00	\$ 1,103,360
4.04	Sodding Including Top Soil	1,500,000	SY	\$ 5.00	\$ 7,500,000

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL COST
4.05	Traffic Control (IH 35E / SH 183)	1	LS	\$ 23,000,000.00	\$ 23,000,000
4.06	Traffic Control (IH 45)	1	LS	\$ 9,000,000.00	\$ 9,000,000
4.07	Traffic Control (Cross Streets)	98	STA	\$ 10,000.00	\$ 980,000
4.08	Traffic Control (O&M)	280	STA	\$ 2,000.00	\$ 560,000
4.09	Intersection Signalization (Standard)	9	EA	\$ 150,000.00	\$ 1,350,000
4.10	Intersection Signalization (Special)	11	EA	\$ 200,000.00	\$ 2,200,000
4.11	Install OSB including Drilled Shafts	17	EA	\$ 80,000.00	\$ 1,360,000
4.12	Install COSS including Drilled Shaft	48	EA	\$ 40,000.00	\$ 1,920,000
4.13	Install Ground Mount	19	EA	\$ 1,000.00	\$ 19,000
4.14	Install Bridge Mount	22	EA	\$ 2,000.00	\$ 44,000
4.15	Remove and Replace Existing Guide Sign	8	EA	\$ 5,000.00	\$ 40,000
4.16	Guide Signs	19,850	SF	\$ 20.00	\$ 397,000
4.17	Small Signs	663	STA	\$ 500.00	\$ 331,500
4.18	Lighting - Linear	663	STA	\$ 10,000.00	\$ 6,630,000
4.19	Lighting - High Mast	10	EA	\$ 250,000.00	\$ 2,500,000
4.20	Landscape	645	STA	\$ 9,500.00	\$ 6,127,500
4.21	SWP3	663	STA	\$ 2,000.00	\$ 1,326,000
4.22	R.O.W. Fence	700	LF	\$ 20.00	\$ 14,000
4.23	Environmental Mitigation (7)	1	LS	\$ 22,897,340.00	\$ 22,897,340
4.24	Concrete Sidewalks	20,240	SY	\$ 45.00	\$ 910,800
4.25	R.O.W. Prep	444	STA	\$ 2,000.00	\$ 888,000
4.26	Wick Drains	150	AC	\$ 100,000.00	\$ 15,000,000
SUBTOTAL MISCELLANEOUS					\$ 106,319,340

5.0 - GANTRIES

5.01	ETC Mainlane Gantry	4	EA	\$ 1,000,000	\$ 4,000,000
5.02	ETC Ramp Gantry	10	EA	\$ 300,000	\$ 3,000,000
SUBTOTAL GANTRIES					\$ 7,000,000

6.0 - MAINTENANCE FACILITIES (Provided by Maintenance Department)

6.01	Maintenance Facilities	1	EA	\$ 10,000,000	\$ 10,000,000
6.02	Sand Stockpile	1	EA	\$ 1,200,000	\$ 1,200,000
6.03	Asset Data Management	1	EA	\$ 100,000	\$ 100,000
SUBTOTAL MAINTENANCE FACILITIES					\$ 11,300,000

CONSTRUCTION COST SUMMARY

SUBTOTAL CONSTRUCTION	\$ 704,773,005
Mobilization (10%)	\$ 70,477,300
Subtotal Construction	\$ 775,250,305
Construction Contingency (20%)	\$ 155,050,061
TOTAL CONSTRUCTION COST (CURRENT DOLLARS)	\$ 930,300,366
ESCALATED TOTAL CONSTRUCTION COST TO MID-POINT OF CONSTRUCTION	\$ 1,047,061,258

7.0 - ITS (Provided by IT Department)

7.01	CCTV	20	EA	\$ 30,000	\$ 600,000
7.02	Dynamic Messaging Sign	4	EA	\$ 250,000	\$ 1,000,000
7.03	Pavement Sensors	2	EA	\$ 20,000	\$ 40,000
7.04	AVI Travel Time Sensors	20	EA	\$ 15,000	\$ 300,000
7.05	Electronic Tolling Equipment	40	EA	\$ 80,000	\$ 3,200,000
7.06	Fiber Optic (2 Operational Conduits)	9	MILE	\$ 300,000	\$ 2,700,000
7.07	Signage	40	EA	\$ 20,000	\$ 800,000
SUBTOTAL ITS					\$ 8,640,000
CONTINGENCY (20%)					\$ 1,728,000
SUBTOTAL ITS COST					\$ 10,368,000
ESCALATED TOTAL ITS COST TO MID-POINT OF CONSTRUCTION					\$ 11,669,275

8.0 - R.O.W. & UTILITIES (Provided by R.A.T. Team)

8.01	Land and Displacement(Acquisitions, relocations, demolition, fees)				\$ 107,167,997
8.02	Relocate Small Utility Lines (<8")	30,600	LF	\$ 90	\$ 2,754,000
8.03	Relocate Medium Utility Lines (10"-21")	13,250	LF	\$ 200	\$ 2,650,000
8.04	Relocate Large Utility Lines (24"-42")	9,475	LF	\$ 390	\$ 3,695,250
8.05	Relocate Small Drainage Lines (<18")	6,550	LF	\$ 120	\$ 786,000
8.06	Relocate Medium Drainage Lines (21"-42")	4,575	LF	\$ 190	\$ 869,250
8.07	Relocate Large Drainage Lines (48"-72")	2,475	LF	\$ 370	\$ 915,750
8.08	Relocate Fiber Optics Line	4,950	LF	\$ 250	\$ 1,237,500
8.09	Relocate Transmission Tower	11	EA	\$ 400,000	\$ 4,400,000
8.10	Adjust Transmission Tower	12	EA	\$ 400,000	\$ 4,800,000
8.11	Relocate U/G Electric Distribution Line	4,000	LF	\$ 200	\$ 800,000
8.12	Relocate Overhead Transmission Line	44,000	LF	\$ 210	\$ 9,240,000
8.13	Utility Contingencies (20%)	1	LS	\$ 6,429,550	\$ 6,429,550
SUBTOTAL R.O.W. & UTILITIES					\$ 145,745,297

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL COST
9.0 SOFT COST					
Subtotal Construction Cost					\$ 930,300,366
9.01	Administrative				
9.01a	GEC (2.25%)				\$ 20,931,758
9.01b	Corridor Management (2.5%)				\$ 23,257,509
9.01c	Legal Consulting Fees (0.5%)				\$ 4,651,502
9.02	Planning				
9.02a	Feasibility Studies & Advanced Planning (0.75%)				\$ 6,977,253
9.02b	Cost of Finance (0.75%)				\$ 6,977,253
9.02c	EIS/EA Schematic (0.5%)				\$ 4,651,502
9.03	Design				
9.03a	PS&E (6.5%) (DSE, geotechnical, pavement, landscaping, MSE wall design)				\$ 60,469,524
9.03b	Surveying (0.25%)				\$ 2,325,751
9.04	R.O.W. Acquisition Consultant (1.5%) (RAT Team, asbestos insp. & abatement)				\$ 13,954,505
9.05	Construction Support				
9.05a	Construction Management (6.75%)				\$ 62,795,275
9.05b	Materials Testing & Environmental Compliance (1.25%)				\$ 11,628,755
9.05c	Wall Engineer (0.25%)				\$ 2,325,751
9.05d	Independent Assurance (0.75%)				\$ 6,977,253
9.06	Reimbursements - Optional				\$ -
9.07	Special Services Consultant				\$ -
9.08	Unique Features (historic sites, wetlands) - Optional				\$ -
Subtotal Soft Cost					\$ 227,923,590
ESCALATED TOTAL SOFT COST TO MID-POINT OF CONSTRUCTION					\$ 256,530,008
TOTAL PROJECT COST SUMMARY (CURRENT DOLLARS)					
Total Construction Cost					\$ 930,300,366
Total ITS Cost					\$ 10,368,000
Total R.O.W. & Utilities					\$ 145,745,297
Total Soft Cost					\$ 227,923,590
TOTAL PROJECT COST (CURRENT DOLLARS)					\$ 1,314,337,253
TOTAL PROJECT COST SUMMARY (ESCALATED)					
Escalated Total Construction Cost					\$ 1,047,061,258
Escalated Total ITS					\$ 11,669,275
Total R.O.W. & Utilities					\$ 145,745,297
Escalated Total Soft Cost					\$ 256,530,008
TOTAL PROJECT COST (ESCALATED)					\$ 1,461,005,839
				SAY	\$ 1,461,006,000
REPORTING COST DISTRIBUTION					
Professional Services					\$ 54,970,716
Planning					\$ 20,941,225
Design					\$ 70,676,635
Other					\$ -
Gantries					\$ 8,666,418
ITS					\$ 11,669,275
Right-of-Way & Utilities					\$ 161,451,216
Construction Management					\$ 94,235,513
Construction/Installation					\$ 849,894,556
Construction Contingency (20%)					\$ 174,510,210
Maintenance Facilities					\$ 13,990,075
TOTAL PROJECT COST					\$ 1,461,005,839
				SAY	\$ 1,461,006,000

Notes:

- 1) The unit costs to construct this facility are based on the unit prices of recently constructed similar facilities and/or the latest average unit prices of TxDOT projects.
- 2) Preliminary horizontal and vertical alignments are developed. Approximate quantities of major roadway and structure elements can be calculated.
- 3) Proposed drainage and utilities elements are not developed and quantities are not calculated individually yet.
- 4) Major above surface utility relocations could be identified (i.e. electric transmission lines, telephone poles, etc).
- 5) Approximate right-of-way needs can be estimated.
- 6) Approximate ITS elements needs can be identified.
- 7) Environmental Mitigation costs based on Hazmat Remediation, Vegetation Enhancements, Waters of the US Mitigation, Asbestos Abatement, and proposed Noise Barriers.
- 8) 20% contingencies are applied to construction and ITS cost.
- 9) Quantities based on 95% FEIS schematic as of February 10, 2014.
- 10) Engineer's opinion of preliminary cost of construction is for interim review and not intended for regulatory approval, permit, bidding, or construction purposes.

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TRINITY PARKWAY ALTERNATIVE 3C
HAZARDOUS MATERIAL SITES INVESTIGATION/REMEDATION COST ESTIMATE

Site Description (Plate ID)	Summary of Regulatory Databases	Regulatory Reference	Environmental Concerns	Documented/Suspected Constituents of Concern (COCs)	Investigation Response Actions	Investigation - Remediation Category	Remedial Design, Oversight, and Closure Category		Suspected Waste Classification/ Volume	ESTIMATED COST BASED ON INV/REMED CATEGORY	
							3C			3C	
Phase I Environmental Site Assessments affected parcels for each alternative	NA	NA	NA	NA	Phase I ESA in accordance with ASTM	Typical	170 parcels		Assume Phase I ESA for 125 parcels \$3,200 each.	\$400,000	
							Subtotal			\$400,000	
I-35 to Trinity Floodway N. Levee	SWF/LF	Unpermitted Landfill	City of Highland Park Landfill Unpermitted landfilling activities. Uncontrolled fill. Impacts from off-site sources.	VOCs RCRA Metals TPH PAHs	Site Investigation Activities	Typical/Complex	1C		3C Assume 6,500 CY MSW Bridge Piers	\$37,000	
					TCEQ approval LF Penetrations	Typical	Site Specific			\$80,000	
					TCEQ APAR/RAP/RACR	Small/Typical	3B			\$57,000	
					Remedial Design/Oversight	NA	NA			\$0	
					Remedial Construction	T&D Class 2	NA			\$260,000	
					Subtotal					\$434,000	
Star Wholesale Florists 8223 and 8383 North Stemmons Freeway (Haz Mat Sites #67 and #66)	VCP AUL GCC	Facility ID # 0233 Facility ID # 2059	5.5 Acres site with VOC affected groundwater. MSD placed on property in 2009	VOCs, Chlorinated Solvents	Site Investigation Activities	Typical	1A			\$10,500	
					MSD						
					TCEQ APAR/RAP/RACR						
					Remedial Design/Oversight						
Remedial Construction							Subtotal		\$10,500		
Dallas Freightliner-Western Star The ATC Freightliner Group, LP 3040 Irving Boulevard (Haz Mat Site #65)	IHW PST RCRA	Facility ID # 62478	Conditionally Exempt Small Quantity Generator of waste including solvents, paint waste, ignitable materials, cadmium, chromium, benzene, chloroform, 1,2-dichloroethane, tetrachloroethene, trichloroethene, and spent non-halogenated solvents. One 2,000 gallon AST installed in 1992, out of use in 1998.	VOCs RCRA Metals TPH PAHs	Site Investigation Activities	Complex	1C		Whole take assume pier spoils suitable for reuse on-site. Assume no source removal required with MSD.	\$37,000	
					MSD	Site Specific	Site Specific			\$52,000	
					TCEQ APAR/RAP/RACR	Complex	3C			\$85,000	
					Remedial Design/Oversight						
					Remedial Construction						
					Subtotal					\$174,000	
Dover Elevator 7017-7021 Carpenter Freeway (Haz Mat Site #44)	VCP IOP AUL GCC	VCP No. 455 IOP No. 167	Received into the VCP in 1997 due to VOCs and TPH affected soils and groundwater at the site. Institutional control for non-residential land use. IOP certificate issued in 2004 for VOCs in groundwater.	TPH VOCs	Site Investigation Activities	Typical	1B		Whole take Assume 1,400 cy Class 2	\$23,000	
					VCP Coord	Site Specific	Site Specific			\$7,500	
					TCEQ APAR/RAP/RACR	Typical	3B			\$57,000	
					Remedial Design/Oversight	Small	2A			\$83,000	
					Remedial Construction	Small	4Ai			\$278,000	
					Subtotal					\$425,500	
Continental to Sylvan TU Electric Payne Street Service Center 100 Payne Street (Haz Mat Site #15)	RCRIS-SQG ICIS IHW	EPA No. TXD000836460 and 110005030778	RCRA Generator with violations Toxic Substances Control Act enforcement actions Wastes: halogenated solvents, PCB contaminated solids, wet cell batteries, lubricating oil, oil skimmings, PCB capacitors, asbestos, paint solvents, lead wastes, metal scrap, PCB transformer oil, used ethylene glycol, ignitable waste, caustic wastes, metals, non- halogenated solvents	VOC SVOCs PCBs TPH Metals	Site Investigation Activities	Site Specific	1B		Assume no soil or groundwater remediation. Only APAR and regulatory closure required.	\$23,000	
					TCEQ APAR/RAP/RACR	Site Specific	3A			\$39,000	
					MNA	Site Specific	NA			\$0	
					Remedial Construction Oversight	Site Specific	NA			\$0	
					Remedial Construction	Site Specific	NA			\$0	
					Subtotal					\$62,000	
Industrial alignment DART to I 35 Chevron/Texaco/Gulf/Metro Cost Plus 201 Corinth St. (Haz Mat Site #22)	LPST PST	LPST No. 97465	Four USTs removed from the ground. Two 10,000-gallon gasoline USTs in use. LUST Status – Monitoring. LUST Priority – Groundwater impacted, no apparent threats or impacts to receptors.	VOC TPH	PST Removals	Typical	Site Specific		Remove 2 - 10K USTs LPST Impacted Groundwater MNA	\$40,000	
					Monitored Natural Attenuation	Typical	Site Specific			\$45,000	
					Subtotal					\$85,000	
Industrial alignment DART to I 35 Atlas Scrap Iron & Metal 2209 S.Industrial (HM #24), Kwik Stop 418 Corinth, (HM #21), Okon Metals 2110 S. Industrial (HM #62), Ace Brass & Aluminum Co., 1203 S. Industrial (HM #61)	VCP	VCP No. 402	Scrap metal yard. VCP Site – 1.9 acres. Soils impacted by metals, total petroleum hydrocarbons, and VOCs. Excavation/removal of affected media and a surface cap were implemented to satisfy Risk Reduction Standard No. 3 requirements. Conditional certificate of completion issued in 1999.	VOC SVOC TPH Metals	Site Investigation Activities	Complex	1C		Whole take Atlas VCP RRR 3 Assume 2,000 cy Class 2	\$37,000	
					VCP Coord	Typical	2B			\$7,500	
					TCEQ APAR/RAP/RACR	Large	3C			\$85,000	
					Remedial Design/Oversight	Small	2A			\$83,000	
					Remedial Construction	Small	4Ai			\$278,000	
					Subtotal					\$490,500	

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TRINITY PARKWAY ALTERNATIVE 3C
HAZARDOUS MATERIAL SITES INVESTIGATION/REMEDATION COST ESTIMATE

Site Description (Plate ID)	Summary of Regulatory Databases	Regulatory Reference	Environmental Concerns	Documented/Suspected Constituents of Concern (COCs)	Investigation Response Actions	Investigation - Remediation Category	Remedial Design, Oversight, and Closure Category	Suspected Waste Classification/ Volume	ESTIMATED COST BASED ON INV/REMED CATEGORY
							3C		3C
Trinity Floodway North Levee to DART (Includes impacted soil in SB 016 and SB 031)	Affected soil & groundwater documented in floodway		Unpermitted landfilling activities. Uncontrolled fill. Impacts from off-site sources.	VOCs RCRA Metals TPH PAHs	Site Investigation Activities	Complex	Site Specific	3C Assume 5,000 CY Class 1	\$100,000
					MSD	Complex	Site Specific		\$100,000
					TCEQ APAR/RAP/RACR	Complex	3C		\$85,000
					Remedial Design/Oversight	Typical	2B		\$138,000
					Remedial Construction	Typical	4Aii		\$453,000
					Subtotal				
DART to MLK 1000, 1001, & 1005 Forest (Faubion Haz Mat Site #42, EZWALL STUCCO/PraxaireUnion Haz Mat Site #26 Carbide/etc., & Brown Forest Prop./Forest Ave Landfill/Big City Crushed Concrete)	RCRIS-SQG RCRIS TDS LPST PST		Unpermitted Landfilling activities PSTs LPST	VOCs RCRA Metals TPH PAHs	Site Investigation Activities	Typical	1B	Assume 700 LF Piers 2,300 cy MSW	\$23,000
					MSD	Typical	Site Specific		\$30,000
					TCEQ APAR/RAP/RACR	Typical	3B		\$57,000
					Remedial Design/Oversight	Small	NA		\$0
					Remedial Construction	T&D Class 2	Site Specific		\$92,000
					Subtotal				
MLK to MKT RR 1100 Lenway & 3301 National (Beal Concrete Haz Mat Site #29, Liquid Air Haz Mat Site #29, & Occidental Haz Mat Sites #30 and #40)	RCRIS-LQG LPST PST VCP (Partial Response Action Area)		Unpermitted Landfilling activities PSTs LPST	VOCs RCRA Metals TPH PAHs	Site Investigation Activities	Complex/Typ	1B	Assume 800 LF Piers 3,200 cy Class 2 Pier Spoils	\$23,000
					MSD	Typical	Site Specific		\$30,000
					TCEQ APAR/RAP/RACR	Complex/Typ	3A		\$39,000
					Remedial Design/Oversight	Typical	NA		\$0
					Remedial Construction	T&D Class 2	Site Specific		\$128,000
					Subtotal				
MKT RR to I45 3601, 4035, 3701, & 3637 S Lamar, 1301 McDonald, & 4115 Julius Schepps (DISD/Proctor and Gamble Haz Mat Site #28, Duggan Industries, & Corp Facility Resources)	RCRIS-SQG LPST PST		Unpermitted Landfilling activities PSTs LPST Vehicle Maintenance	VOCs RCRA Metals TPH PAHs	Site Investigation Activities	Complex	1C	3C: 7,000 cy (3500 cy Class 2/3500 cy Class 1)	\$37,000
					MSD	Typical	Site Specific		\$20,000
					TCEQ APAR/RAP/RACR	Typical	3B		\$57,000
					Remedial Design/Oversight	Small	2A		\$76,000
					Remedial Construction	Small	4Aii		\$453,000
					Subtotal				
I-45 to SH 310 4305, 4605, 4717 S. Lamar (Gold Metal Recyclers Parcels)	PST VCP MSD		Metal Recycling Facilities PSTs/ASTs	VOCs RCRA Metals TPH PAHs	Site Investigation Activities	Complex	1C		\$37,000
					MSD Application/Certification	Typical	Site Specific (Completed by Others)		\$0
					TCEQ APAR/RACR	Typical	3B (Already Completed)		\$0
					Remedial Construction Oversight	Typical	NA		\$0
					Remedial Construction	Small	NA		\$0
					Subtotal				
I-45 to SH 310 4605, 4801, 5211-5311 S. Lamar (Trinity Recycling/Herman Gibbons Landfill/ Greenleaf Auto Small Comm/Res Parcels)	ICIS PST IHW CESQ VCP MSD		Metal Recycling Facilities Unpermitted Landfills Metal Smelting/Refining PSTs/ASTs Machine Shops Auto Repair Facilities	VOCs RCRA Metals TPH PAHs Pesticides	Site Investigation Activities	Complex	1C	3C: 5,000 cy Class 2 10,000 cy HW	\$37,000
					MSD	Typical	Site Specific		\$25,000
					TCEQ APAR/RAP/RACR	Large	3C		\$85,000
					Remedial Design/Oversight	Typical	2B		\$138,000
					Remedial Construction	Complex	Site Specific		\$896,000
					Subtotal				
10/7/2013								TOTAL	\$5,240,500
		Sources: Environmental Data Resources, Inc. (EDR), 2012; USACE, 1999. Notes: * ROW take based on GIS calculations of alternative footprint within parcel 9/16/2013						TOTAL w/ Contingencies	6,550,625

*****This cost estimate was prepared utilizing standard cost estimate practices, when actual cost or bids could not be used. It is understood and agreed that this is an estimate only, and that engineer, shall not be liable to owner or to third party for any failure to accurately estimate the cost of the project, or any part thereof.*****

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Trinity Parkway Alternative 3C
Estimate of Routine Operations Maintenance Costs

52 Year Estimate Estimate of Probable O&M Costs (2020 - 2071)	Subtotal Roadway Maintenance	Subtotal Landscape Maintenance	Subtotal Maintenance Dept - Admin Overhead	Subtotal Professional Staff Services	Subtotal Maintenance Dept - Agency Overhead	Subtotal Utilities	Subtotal Services Building	TOTAL ALL
2012 \$	\$ 88,350,127	\$ 40,776,982	\$ 14,346,599	\$ 27,857,475	\$ 20,893,106	\$ 10,160,265	\$ 17,647,500	\$ 220,032,054
Escalated \$	\$ 239,481,927	\$ 110,530,120	\$ 38,887,904	\$ 75,510,494	\$ 56,632,870	\$ 27,540,422	\$ 49,322,471	\$ 597,906,208

Notes:

- 1. Factors including design changes, specific agreements with local, state and/or federal entities and unique maintenance characteristics can significantly affect the estimated Operations and Maintenance cost. The level of information used to estimate Operations and Maintenance for this project is sketch level and contains many unknown and specific characteristics which may significantly alter the final estimate for this project. As such, we cannot and will not guarantee that the final estimate of roadway O&M cost will not vary from the cost estimate provided for this request.
- 2. This O&M cost estimate excludes costs for back office toll collection systems, System Incident Management (SIM) equipment, tolling and roadway alert equipment, roadway customer service and law enforcement services.
- 3. The estimate values shown above does not include flood event clean-ups. The cost for such an event is provided separately.
- 4. Trinity Parkway is anticipated to have enhanced amenities including extensive landscaping and special treatments to various elements. This estimate is based on the conclusion that the extensive landscaping will require increased operation and maintenance expenditures.
- 5. The above estimates assumes that it will be the NTTA’s responsibility to maintain areas inside the right-of-way associated with the Trinity Parkway (assuming the same roadway maintenance standards applied to other NTTA System areas such as President George Bush Turnpike) and it will be the responsibility of the City of Dallas to maintain areas outside of the Trinity Parkway right-of-way.
- 6. The above estimate assumes that all maintenance on the levee, including vegetative control, is beyond the scope of NTTA maintenance responsibility, with exception to the vegetative control area on the slope between the parkway and the river where there is no flood separation wall.
- 7. This estimate does not include maintaining any landscaping on frontage roads other than turf maintenance within the Trinity Parkway right-of-way.
- 8. This estimate assumes that there will be no landscaping to maintain under bridges in the Trinity Parkway right-of-way other than turf maintenance.
- 9. Escalation %: 2.75%.

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